

## REMARKS

### Status of the Claims

Claims 1, 5-12, 14-15, 22-29, and 31 are pending in the present application. Claims 2-4, 13, 16-21, and 30 were previously canceled. Claim 1 is rephrased for clarity and has been amended to specify "consisting essentially of" in lieu of "comprising." Claim 31 has been added. Support for claim 31 is found in pending claim 1. No new matter is entered by way of this amendment. Reconsideration is respectfully requested.

### Suspension of Action

The Examiner is respectfully advised that Applicants request a Suspension of Action in the present application under 37 CFR 1.103(a) for a period of three months.

### Issues Under 35 U.S.C. § 112, Second Paragraph

In the advisory action of May 18, 2009, the Examiner stated that the rejection of claims 9 and 30 under 35 U.S.C. § 112, second paragraph, is withdrawn in view of Applicants' amendment to claim 9 and cancellation of claim 30.

### Issues Under 35 U.S.C. § 103(a)

Claims 1, 5-12, 14, 15, and 22-30 remain rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 3,346,558 to Roth, ("Roth") in view of Leitheiser *et al.*, *Ind. Eng. Chem. Res. Dev.*, 1966, 5:276-282, ("Leitheiser"). Applicants respectfully traverse this rejection.

In the Advisory Action, the Examiner alleges that the instant claims encompass the acid catalysts described in Leitheiser. The Examiner states that the instant claims are open-ended because the claimed method specifies the term "comprising." Accordingly, the Examiner asserts that the present claims are not limited to catalysts selected from phosphoric acid, H<sub>3</sub>PO<sub>4</sub>, hypophosphorous acid, H<sub>3</sub>PO<sub>2</sub>, and phosphorous acid, H<sub>3</sub>PO<sub>3</sub>.

The Examiner agrees that Roth teaches that sulfonic acids are preferred and that strong mineral acids are somewhat inferior. However, the Examiner refers to Roth at column 3, lines 30-35, which states that "[s]trong mineral acids such as sulfuric acid, hydrochloric, etc. can be

employed.” According to the Examiner, this statement is sufficient to support his contention that Roth teaches that strong mineral acid catalysts are suitable for preparing polyol-glycosides. The Examiner further alleges that, even though Roth teaches that strong mineral catalysts are somewhat inferior, Roth suggests that strong mineral catalysts are equivalent to sulfonic acid catalysts. In addition, the Examiner cites MPEP § 2145 X.D.1 for the proposition that, if a composition is described as inferior in the prior art, it can still be obvious. Accordingly, the Examiner does not believe that Roth teaches away from the instant invention.

Applicants respectfully direct the Examiner’s attention to the recent Board of Appeals Decision of Ex parte Whalen. (Bd. Pat. App. & Int., July 23, 2008), which states that, if the prior art, collectively, suggests that a “modified product” would be inferior or have problems, there is no good reason to modify the prior art to arrive at such a modified product. In the Whalen case, the Board of Patent Appeals and Interferences held that the modified product was not *prima facie* obvious. Applicants reiterate that an ordinary artisan would not have been motivated to modify Roth to use a phosphorus-containing acid catalyst as described in the claimed method, since Roth states that sulfonic acids are preferred, given that strong mineral acids yield polyol-glycosides of somewhat darker color than the sulfonic acids. Accordingly, Applicants submit that a *prima facie* case of obviousness has not been established.

Notwithstanding the foregoing, in an effort to expedite prosecution, independent claim 1, as amended, is directed to a process for manufacturing transglycosylation products, comprising the steps of: reacting a starch ester or starch ether at acidic conditions with an alkanol containing 1 to 6 hydroxyl groups in the presence of an acidic catalyst consisting essentially of at least one of phosphoric acid,  $\text{H}_3\text{PO}_4$ , hypophosphorous acid,  $\text{H}_3\text{PO}_2$ , and phosphorous acid,  $\text{H}_3\text{PO}_3$  in a transglycosylation reaction wherein the catalyst is allowed to chemically bond with the transglycosylation product to form a reaction mixture, wherein said acid catalyst comprises phosphorous, and recovering a transglycosylation product, or subjecting the transglycosylation product to further processing, characterized in that the reaction is performed in a reactive extrusion process essentially without any medium, and the reaction mixture is conducted through an extrusion device via at least two separately adjustable heating zones, thereby providing control of heat introduced externally into the reaction mixture.

In contrast to the cited references, the instant claims are limited to phosphoric acid,  $\text{H}_3\text{PO}_4$ , hypophosphorous acid,  $\text{H}_3\text{PO}_2$ , or phosphorous acid,  $\text{H}_3\text{PO}_3$ , acid catalysts. Neither Ross nor Leitheiser, alone or in combination, teach these elements.

Based upon the foregoing, the claims are not obvious over the cited references. Withdrawal of the rejection is respectfully requested.

### CONCLUSION

In view of the above amendment and remarks, Applicants believe that the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Linda T. Parker, Reg. No. 46,046, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: JUL 29 2009

Respectfully submitted,

By



Gerald M. Murphy, Jr.

Registration No.: 28,977

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant